

**WHAT IS CLAIMED IS:**

1. A core structure of a heat exchanger, comprising:

5    tubes in which a heat exchange medium flows;

corrugated fins adhering to said tubes to radiate heat from the heat exchange medium; and

10   sheet plates arranged opposite to each other with a predetermined space interposed therebetween and having said tubes and said corrugated fins arranged alternately therebetween, said sheet plates provided with connection portions having wall portions slanted with a predetermined slant angle from main body portions thereof toward said tubes and tube holes  
15   through which said tubes are inserted to be fixed,

wherein when said tubes have a thickness of 0.13 mm to 0.23 mm, a slant angle  $\theta$  of the connection portions is:

slant angle  $\theta$  ( $^{\circ}$ )  $\geq 25 \times (\text{thickness (mm) of sheet plate}) + (-125 \times (\text{thickness (mm) of tube})) + 25$   
20